

10/529390
JC17 Rec'd PCT/PTO 28 MAR 2005

CLAIMS

1. An escape mask that enables one to breathe filtered air in the presence of contaminated air containing smoke, unidentified particles, chemical and/or biological agents or combinations of these, the mask comprising,

A. a hood foldable to pocket size that when unfolded can cover the entire head, comprising:

1. a bag made of transparent plastic film material impermeable to gases,
2. a filter assembly capable of filtering contaminated air or particles,
3. an exhalation valve forming part of the mask, and

B. separate sealing means, not attached to the bag, to seal the hood around the neck, enabling adjusting the bag over the head to reduce the free space inside the hood.

2. A mask as in claim 1, wherein the transparent plastic film material is made of a laminate of more than one plastic material.

3. A mask as in claim 2, wherein the transparent plastic film material is a laminate of a gas impermeable polymer film sandwiched between polyethylene film layers.

4. A mask as in claim 3, wherein the gas impermeable polymer film is a polyamide polymer film.

5. A mask as in claims 3 and 4, further including binder film between the polyethylene layers and the polyamide film layer.

6. A mask in claims 1 to 5, wherein the hood is transparent only on the part that will be worn opposite the eyes, mouth and nose.

7. A mask as in claims 1, wherein the filter assembly is adhered to the bag.

8. A mask as in claim 7, wherein the filter assembly is heat sealed onto the bag.

9. A mask as in claim 1, wherein the filter assembly is a multilayered filter assembly containing at least one filter layer containing an antiseptic effective against microorganisms and at least one filter layer containing active charcoal.

10. A mask as in claim 9, wherein the filter assembly comprises an activated charcoal filter layer sandwiched between two filter layers containing an antiseptic that destroys microorganisms.
11. A mask as in claims 9 and 10, wherein the antiseptic material is selected from chlorhexidine salt and cetylpyridinium chloride.
12. A mask as in claims 1 to 11, wherein the filter is in the area where the nose and mouth of someone wearing the mask.
13. A mask as in claims 9 to 11, wherein the antiseptic filter layers are able to filter out particles greater than 2 microns.
14. A mask as in claims 1 to 13, including a filter layer able to prevent passage therethrough of particles greater than 0.3 microns.
15. A mask as in claims 1 to 14, wherein the exhalation valve is embedded in the filter assembly.
16. A mask as in claims 1 to 15, wherein the exhalation valve is in the area opposite the lips of someone wearing the mask.
17. A mask as in claims 1 to 16, wherein the exhalation valve comprises an elastic diaphragm having a flexible circumferential end, said diaphragm fitted close to the base of a frame, allowing exhaling air to lift its circumferential end to let the exhaled air pass, and return the circumferential end to its original position when exhaled air ceases to flow, preventing outside air from passing through the valve.
18. A mask as in claims 1 to 17, wherein the separate sealing means is an elastic band.
19. A mask as in claims 1 to 17, wherein the separate sealing means are two elastic bands.
20. A mask as in claims 18 and 19, wherein the band is of a size and strength to achieve a good seal and still avoid chocking the wearer when placing the band around a neck.

21. A mask as in claims 1 to 17, wherein the separate sealing means is an adhesive tape.
22. A mask as in any one of claims 1 to 21, wherein the mask is folded to the size of a folded handkerchief when not in use.
23. A mask as in any one of claims 1 to 22, that can be turned inside out forming a bag after removal from the head, so that the contaminated outside surface will now face inwards.
24. A mask as in claim 1, wherein the filter, is replaced by a filter connector element for attaching thereto a combined filter cartridge or canister.
25. A mask as in claim 24, wherein the filter connector element is a screw-on or "bayonet" connector.
26. A mask as in claims 1 to 25, comprising instead of or in addition to the filter, an inlet for connecting to a fresh air supply.

606-03maski70304amendedclaim.doc